Complete Summary

GUIDELINE TITLE

Primary prevention of chronic disease risk factors.

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Primary prevention of chronic disease risk factors. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2008 Mar. 60 p. [101 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Chronic diseases, particularly

- Heart disease
- Stroke
- Cancer
- Diabetes
- Depression

GUIDELINE CATEGORY

Counseling
Evaluation
Management

Prevention
Risk Assessment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Nutrition
Obstetrics and Gynecology
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Physician Assistants
Physicians
Psychologists/Non-physician Behavioral Health Clinicians
Public Health Departments
Social Workers
Utilization Management

GUIDELINE OBJECTIVE(S)

- To establish a relationship with employers to promote the implementation of an annual health risk assessment for employees
- To increase the percentage of adult patients with an up-to-date (within the last year) health risk assessment
- To increase the number of adult patients with documentation in their medical record, indicating that education around healthier lifestyle was provided
- To increase the number of adult patients with documentation in their medical record indicating they self-reported follow-through with recommended interventions in the area of physical activity, nutrition, tobacco use, hazardous and harmful drinking/alcohol use
- To develop relationships within the community that foster education and resources around healthier lifestyle (in order to prevent chronic disease risk factors)

TARGET POPULATION

All adults age 18 and older in the community, irrespective of their utilization of the health care system

Note: Although this guideline focuses on adults, adolescents and children may benefit from many of the components or recommendations in this guideline.

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation/Risk Assessment

1. Complete health risk assessment
2. Assessment of physical activity
3. Assessment of nutrition using the "REAP" assessment, the "Rate your Plate" assessment, and the recommended food score (RFS) checklist
4. Assessment of tobacco use and exposure including identifying smokers and assessing readiness to quit
5. Assessment of harmful and hazardous drinking using the Alcohol Use Disorders Identification Test (AUDIT) and assessing readiness to change

Management/Prevention/Counseling

1. Interventions to increase physical activity
    - Exploring barriers to increasing physical activity
    - Identifying mutually agreed-upon goals
    - Gradually increasing levels of physical activity
2. Interventions to improve nutrition
    - Assisting with goal setting and referrals to community; identify local resources
    - Providing behavioral dietary counseling for high-risk individuals. **Note:** routine behavioral counseling to promote a healthier diet in the general healthy population is not recommended
    - Encouraging fruit and vegetable intake, portion control, consumption of whole grains instead of refined grains, selecting lean sources of protein, and reducing sodium intake; eliminating saturated and trans fat; creating individual meal plan
3. Interventions to decrease tobacco use and exposure
    - Positive reinforcement
    - Setting a quit date
    - Prescribing medication
    - Referring to telephone coach or support group
    - Scheduling follow-up
4. Interventions to decrease hazardous and harmful drinking
    - Providing brief behavioral counseling interventions including patient education about appropriate levels of alcohol use and the risks associated with excessive drinking, simple advice, goal-setting, and practical suggestions
    - Referring to specialized programs
    - Scheduling follow-up office visit
5. Community interventions including employers and worksites, health plans and employee managers, educators and schools, and other community collaborations

MAJOR OUTCOMES CONSIDERED

- Validity and reliability of assessment tools
- Efficacy of clinical interventions

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A literature search of clinical trials, meta-analysis, and systematic reviews is performed.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of individual research reports is assessed using a hierarchical rating system.

A. Primary Reports of New Data Collection

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Non-randomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study
- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

New Guideline Development Process

A new guideline, order set, and protocol is developed by a 6- to 12-member work group that includes physicians, nurses, pharmacists, other healthcare professionals relevant to the topic, along with an Institute for Clinical Systems Improvement (ICSI) staff facilitator. Ordinarily, one of the physicians will be the leader. Most work group members are recruited from ICSI member organizations, but if there is expertise not represented by ICSI members, 1 or 2 members may be recruited from medical groups or hospitals that outside of ICSI.

The work group will meet for seven to eight three-hour meetings to develop the guideline. A literature search and review is performed and the work group members, under the coordination of the ICSI staff facilitator, develop the algorithm and write the annotations and footnotes and literature citations.

Once the final draft copy of the guideline is developed, the guideline goes to the ICSI members for critical review.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The guideline developers reviewed published cost analyses.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Critical Review Process

Every newly developed guideline or a guideline with significant change is sent to the Institute for Clinical Systems Improvement (ICSI) members for Critical Review. The purpose of critical review is to provide an opportunity for the clinicians in the member groups to review the science behind the recommendations and focus on the content of the guideline. Critical review also provides an opportunity for clinicians in each group to come to consensus on feedback they wish to give the work group and to consider changes necessary across systems in their organization to implement the guideline.

All member organizations are expected to respond to critical review guidelines. Critical review of guidelines is a criterion for continued membership within ICSI.

After the critical review period, the guideline work group reconvenes to review the comments and make changes, as appropriate. The work group prepares a written response to all comments.

Approval

Each guideline, order set, and protocol is approved by the appropriate steering committee. There is one steering committee each for Respiratory, Cardiovascular, OB/GYN, and Preventive Services. The Committee for Evidence-based Practice approves guidelines, order sets, and protocols not associated with a particular category. The steering committees review and approve each guideline based on the following:

- Member comments have been addressed reasonably.
- There is consensus among all ICSI member organizations on the content of the document.
- Within the knowledge of the reviewer, the scientific recommendations within the document are current.
- Either a critical review has been carried out, or to the extent of the knowledge of the reviewer, the changes proposed are sufficiently familiar and sufficiently agreed upon by the users that a new round of critical review is not needed.

Once the guideline, order set, or protocol has been approved, it is posted on the ICSI Web site and released to members for use. Guidelines, order sets, and protocols are reviewed regularly and revised, if warranted.

Revision Process of Existing Guidelines

ICSI scientific documents are revised every 12 to 36 months as indicated by changes in clinical practice and literature. Every 6 months, ICSI checks with the work group to determine if there have been changes in the literature significant enough to cause the document to be revised earlier than scheduled.

Prior to the work group convening to revise the document, ICSI members are asked to review the document and submit comments. During revision, a literature search of clinical trials, meta-analysis, and systematic reviews is performed and reviewed by the work group. The work group will meet for 1 to 2 three-hour meetings to review the literature, respond to member organization comments, and revise the document as appropriate.

If there are changes or additions to the document that would be unfamiliar or unacceptable to member organizations, it is sent to members to review prior to going to the appropriate steering committee for approval.

Review and Comment Process

ICSI members are asked to review and submit comments for every guideline, order set, and protocol prior to the work group convening to revise the document.

The purpose of the Review and Comment process is to provide an opportunity for the clinicians in the member groups to review the science behind the recommendations and focus on the content of the order set and protocol. Review and Comment also provides an opportunity for clinicians in each group to come to consensus on feedback they wish to give the work group and to consider changes needed across systems in their organization to implement the guideline.

All member organizations are encouraged to provide feedback on order sets and protocol, however responding to Review and Comment is not a criterion for continued membership within ICSI.

After the Review and Comment period, the work group reconvenes to review the comments and make changes as appropriate. The work group prepares a written response to all comments.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC) and the Institute for Clinical Systems Improvement (ICSI): For a description of what has changed since the previous version of this guidance, refer to Summary of Changes Report -- March 2008.

The recommendations for the primary prevention of chronic disease risk factors are presented in the form of five algorithms with 7 components, accompanied by detailed annotations. Algorithms are provided for: Primary Prevention of Chronic Disease Risk Factors (main algorithm), Increased Physical Activity Decision Tree, Improved Nutrition Decision Tree, Decreased Tobacco Use and Exposure Decision Tree, and Decreased Hazardous and Harmful Drinking/Alcohol Use Decision Tree. Clinical highlights and selected annotations (numbered to correspond with the algorithm) follow.

Class of evidence (A-D, M, R, X) ratings are defined at the end of the "Major Recommendations" field.

Clinical Highlights

- Four lifestyle behaviors—adequate physical activity, a diet that emphasizes fruits and vegetables, abstinence from tobacco and avoidance of tobacco smoke, and avoidance of hazardous and harmful drinking—are associated with a decade or more of increased life expectancy. Individuals who adopt this lifestyle in middle age have total mortality rates that are 40% lower than those who do not adopt. *(Annotation #6a-d)*
- Medical groups cannot be given the sole responsibility for effecting lifestyle changes. There is a growing recognition and understanding of the role that community networks, physical and social environments, and public policy all play in fostering healthier lifestyles. *(Annotation #1)*
- A broad approach is necessary to achieve and support healthier behaviors in individuals. It requires individual change, health care system redesign, as well as community, employer and payer support. *(Annotation #2)*
- Health risk assessments are most effective when combined with interventions aimed at risk reduction and support. *(Annotation #3)*
- Collaborative decision-making and brief, combined interventions are effective in helping motivate and engage patients in healthier lifestyles. *(Annotation #5)*

Primary Prevention of Chronic Disease Risk Factors Algorithm Annotations

1. **Community Support for Healthier Lifestyles**

   Key Points:

   - Individuals are increasingly activated or motivated to adopt and maintain healthier lifestyles through various community-level initiatives, particularly through employers and worksites.
   - Broad-based community and environmental supports, in collaboration with the health care system, are essential to healthier lifestyles in the population.
   - Physicians, as trusted and respected members of the community, should publicly support those measures, which promote healthier lifestyles, and recommend them to their patients.

   There is no single or comprehensive vision of community interventions; many separate strategies have been proposed and evaluated. The Community Task

Force (CTF), convened and supported by Centers for Disease Control and Prevention (CDC), outlines the following evidence-based preventive strategies, integrated with clinical preventive strategies, in community settings:

- Improvements in health care systems
- Education, policy and environmental changes
- Collaborative partnerships among the various stakeholders in communities *[R]*

Individual providers, by virtue of their standing in their communities and in society, should encourage patients to more effectively utilize community resource, and publicly support new, evidence-based interventions to change the physical and social environment. *[D, R]*

Employers and worksites, through coordinated health risk assessment and health education programs, can positively affect the health and well-being of employees. *[B, R]* One study concluded that implementation of a worksite physical activity program does increase physical activity; however, cardiorespiratory fitness improvement could not be established. *[M]*

Health plans and employers have themselves provided health risk assessments, education programs and other interventions to their enrollees; the available evidence, while incomplete, is promising for certain conditions.

Educators and schools can promote healthier lifestyles through the availability of healthy food choices in cafeterias, through tobacco and alcohol education, or requirements for physical education classes, among other initiatives. *[M]*

Faith-based organizations (churches, synagogues, and mosques) are, for many people and in many communities, an important focus of the social network, and they can provide support for healthier lifestyles as well as sites for screening and wellness outreach. They can be powerful voices for the necessary environmental and public policy changes, as well.

Other community collaborations may also include relationships with state and local agencies, non-profits and service organizations.

Changes in the physical environment include positive changes to promote healthier lifestyles: safe, accessible walking trails, safe and well-lit parks and playgrounds. *[R, M]* These may also include changes that remove barriers to healthier lifestyles. So-called point-of service prompts include such things as nutritional information on menus or reminders prompting people to use stairs rather than elevators.

Changes in the social environment include positive changes to promote healthier lifestyles such as efforts to change public attitudes and social norms, and other types of education campaigns.

Public policy initiatives to support healthier lifestyles include such things as providing public funding for recreational facilities and walking trails, enacting clean indoor air laws, enforcing stricter driving under the influence (DUI) standards, or increasing cigarette taxes. Other examples include tax incentives and zoning codes to encourage grocery stores in low-income and underserved neighborhoods, or initiatives to provide safe, well lit recreation areas in these same areas.

Evidence-based policy aimed at changing health policy is rarely systematically implemented or studied. Even if studied, questions remain about generalizability, ability to maintain benefit, and possible unintended consequences.

A system of evidence-based evaluation of policy changes includes:

- A framework for structured assessment of health policy changes is needed to allow meaningful comparisons among policies while supporting innovative, local solutions
- Assurance that proposed changes are ethical
- Studies to determine if unintended consequences can be minimized
- Pilot projects or timely retrospective assessments to address benefits and harms for stakeholders
- Feedback systems to maintain acceptable outcomes after policy changes *[R]*

More detailed examples of specific community-level interventions and programs, and supporting evidence, are included under Annotation #7, "Community Interventions for Healthier Lifestyles."

2. **Redesign for results (R4R): Patient-Centered Systems for Healthier Lifestyles**

There is little evidence that the current health care system, much less individual providers when they are acting alone, can reliably or consistently motivate or activate individual patients for healthier lifestyles. Rather, health care delivery systems should be designed and organized, based on best evidence, to support already motivated and activated individuals, and to effectively collaborate with other stakeholders.

Patient-centered systems, such as those redesigned to support the chronic care model, can have a positive impact on certain behaviors; the evidence is stronger for decreased tobacco use and decreased hazardous and harmful drinking/alcohol use, and less so for increased physical activity and improved nutrition. *[D]* See Annotation #6, "Provide Support and Appropriate Interventions for Healthier Lifestyles" for more information.

A health care system redesigned for results and for productive interactions between patients and providers includes:

- Clinical information systems

        - Timely information and feedback to patients (tailored treatment plans, tailored messaging for self-management)
        - Timely information on populations and individual patients to providers
    - Decision support systems
        - Evidence-based guidelines and protocols
        - Specialist expertise integrated into primary care
    - Delivery system design
        - Multidisciplinary team and partnerships
        - Use of systematic, proactive planned strategies
        - Systematic follow-up
    - Self-management support
        - Patient-centered, collaborative process between patient and provider
        - Tailored education and psychosocial support
    - Community resources
        - Use of non-clinical resources—the maintenance of healthy lifestyles is strongly related to social support mechanisms

Informed, activated, engaged, and empowered patients have better functional and clinical outcomes. Providers who are prepared and have access to supporting resources are more likely to meet patient needs and expectations.

3. **Complete Health Risk Assessment, with Timely Feedback Provided**

Key Points:

- Annual health risk assessments (HRAs) identify health risk factors and provide feedback on the effectiveness of behavior changes already made.
- Health risk assessments are most effective when combined with timely feedback, education, and other interventions as appropriate.
- Health risk assessments can be administered in many settings.

Health risk assessments are standardized surveys that can measure health status and readiness to change, as well as attitudes, skills, and behaviors. Effective health risk assessments provide feedback and recommendations for change on short-term (next five years) modifiable risk factors.

Benefits of Health Risk Assessments

When health risk assessments are performed consistently, they are valuable for measuring the effect of various interventions on populations. The Community Task Force (CTF), in a recent draft recommendation, states that health risk assessments that include individualized feedback and health education show "strong evidence of effectiveness in improving one or more health behaviors or conditions in populations of workers". *[R]* These improvements include:

- Improving measurements of physical activity
- Reducing dietary intake of fat
- Decreasing tobacco use

- Decreasing hazardous or harmful drinking/alcohol use
- Reducing overall (median) blood pressure measurements
- Reducing overall (median) cholesterol measurements
- Improving the summary health risk estimates of at-risk participants
- Reducing the number of days lost from work due to illness or disability
- Improving a range of measures of use of health care services

The Community Task Force found insufficient evidence to determine whether or not similar programs are effective in:

- Increasing dietary intake of fruits and vegetables
- Altering body composition (body mass index and percentage of fat)
- Improving fitness *[A, R]*

The optimal frequency for performing health risk assessments has not been determined, but there is some evidence, and growing experience, that more frequent contacts may maintain momentum and "critical mass" among populations. Consequently, many corporate health executives try to engage employees on an annual basis.

The optimal location for performing a health risk assessment is not known, although worksites are often most successful for a variety of reasons. One research group studied the Diabetes Prevention Program as a worksite intervention. The study showed improved diet, increased physical activity, and improved clinical measures among study participants. The article found that coworkers and peers can offer social supports as they work together on interventions and that employers can most efficiently provide intensive health-related screening, education, and interventions to large populations. *[D]*

Standardization and Content Validation of Health Risk Assessments

There are many health risk assessments available, both proprietary and in the public domain. Specific, validated instruments are discussed in Appendix A, "Health Risk Assessments" of the original guideline document.

Provide Timely Feedback and Education; Recommend Next Steps

A health risk assessment must provide feedback tailored to the individual's level of risk.

- For low- or medium-risk individuals, recommend lifestyle changes and self-management, and offer education.
- For higher-risk individuals, also offer other appropriate resources and interventions.

4. **Systematically Integrate Clinical and Community Interventions for Optimal Follow-Up**

Key Points:

- Develop systems to convey approval and support of community-level interventions by the primary provider.
- Develop seamless, patient-centered clinical information collection systems to minimize redundancy in collection of patient information, and to integrate health risk assessment information with other health and risk factor assessments and with decision support systems.
- Include and consistently document "lifestyle vital signs" in medical record.

Health care systems should implement the following evidence-based, patient-centered systems changes in order to ensure consistent follow-up and support for healthier lifestyles.

Develop Systems to Convey Primary Provider Approval and Support of Community-Level Interventions

A clear, strong, personal message from the primary care provider appears to be a very helpful intervention for establishing long-term behavior change, particularly when combined with personalized educational materials, follow-up, and referral when appropriate. *[A, B, R]*

Health care systems can implement various innovative methods, other than traditional one-on-one or face-to-face contacts, to convey to patients their primary provider's support, endorsement and familiarity with community-level interventions. Examples might include:

- Follow-up phone calls by office personnel
- Letters signed by the primary care provider
- Awareness of patient participation in specific programs (by chart reminders or other methods) at time of office visits or other contacts

Develop Systems for Seamless, Patient-Centered Clinical Information Collection

Ask once: Develop patient-centered systems for the collection of either clinical or demographic information that can be collected once and readily updated, rather than being collected anew.

Develop systems that are interoperable and that allow information (when and where appropriate and when patient has granted permission) to be shared among collaborators (e.g., worksite health risk assessment information incorporated into medical record). While paper-based systems can be very effective, Web-based systems will ultimately be the standard.

Integrate health risk assessment information with other health and risk factor assessment: Many scales or instruments for risk stratification are also used in selected populations (Personal Health Questionaire-9, etc.), and the collection of many other types of information is mandated by various quality improvement initiatives, regulatory bodies and other guidelines. Computerized systems, utilizing branching logic questions and algorithms, can most efficiently tailor the specific information collected on each individual *[R]*.

Integrate into decision support: Clinical information is being increasingly treated as inputs into other decision support systems; move beyond collecting "stand-alone" information.

Include Documentation of "Lifestyle Vital Signs" in Medical Record

Having a full understanding of the specific needs of each patient, as well as knowing which interventions have been offered and tried, is one characteristic of integrated, patient-centered systems.

Moreover, various accrediting bodies and quality initiatives mandate the documentation of this type of information as the current standard of care. In particular, specific documentation that people have been offered assistance with nutrition, exercise, tobacco use, and problem drinking is often required.

There is good evidence that lifestyle-related diagnoses—particularly tobacco abuse, obesity, and alcohol abuse—are often incompletely represented in the medical record. These "lifestyle vital signs" are very often not mentioned or documented at all. Or, if mentioned, they are usually not specifically named and included in the problem list.

There is good evidence that providers are more likely to address issues that are diagnosed and named in the medical record.

While there is agreement (and International Classification of Diseases [ICD-9] codes) on diagnostic terminology for tobacco use, alcohol abuse or dependence, and obesity, there is currently no consensus regarding diagnostic terminology for inadequate physical activity and poor nutrition. In addition, although the ICD-10 introduced the term harmful drinking; there is not a currently corresponding code for hazardous drinking. *[R]*

While the work group encourages accurate documentation in general, for now caution should be exercised in making (or coding) a specific diagnosis of "harmful" or "hazardous" drinking, particularly if the drinking pattern does not rise to the level of alcohol abuse or dependence. The implications of this degree of specificity of documentation, particularly for insurance and employment reasons, are not yet fully understood.

Nutritional status vital sign can be accomplished with simple screening tools like the 23-item Recommended Food Score (RFS) checklist. *[R]*

5. **Collaborative Decision-Making and Brief Interventions**

Key Points:

- Brief interventions are often effective in helping people make changes leading to healthier lifestyles.
- Individuals should not be discouraged from addressing multiple health behaviors simultaneously; combined interventions result in the greatest benefits.

- There is weak evidence supporting the effectiveness of "stage-based" interventions (interventions tailored to an individual's "readiness to change") – further study is needed.

Collaborative decision-making requires that all persons clarify their individual values and priorities, with help from their providers if they wish, so that they may decide on their desired goals and specific interventions.

Brief interventions consist of feedback of screening data designed to increase motivation to change behaviors, simple advice, health education, skill building, and practical suggestions.

Specific elements of brief interventions include:

- Present screening results
- Identify risks and discuss consequences
- Provide medical advice
- Identify and agree on short- and long-term measurable goals
- Solicit patient commitment
- Give advice and encouragement, assist with motivation, skills and supports
- Arrange follow-up support and repeated counseling, including referral if needed

Refer to the original guideline document for information on readiness to change, motivational interviewing, and combined interventions.

6. **Provide Support and Appropriate Interventions for Healthier Lifestyles**

Key Points:

- There is good evidence supporting specific goals and benefits of increased physical activity, but minimal evidence for the efficacy of most clinical interventions.
- There is good evidence supporting specific goals and benefits of improved nutrition, but minimal evidence for the efficacy of most clinical interventions.
- There is good evidence for the efficacy of systematically identifying and providing brief interventions to all individuals who use or are exposed to tobacco, and offering additional interventions and follow-up, as appropriate.
- There is good evidence for the efficacy of systematically identifying and providing brief interventions to all individuals who engage in hazardous or harmful drinking, as well as those who meet the criteria for alcohol abuse or dependence, and offering additional interventions and follow-up, as appropriate.

Clinical interventions, which reliably support healthier lifestyles, must include the following components:

- Deliver clear, consistent goals and key messages
- Utilize evidence-based, validated assessment instruments
- Be prepared to offer advice and brief counseling to people identified as being likely to benefit
- Be prepared to offer more in-depth intervention or referral to people identified as needing additional services or support
- Have well-developed relationships with community and employer stakeholders

Self-management programs that are based on self-efficacy theory and an emphasis on problem solving, decision-making and confidence building *[R]* can improve health status. *[A]*

Individualization of education and interventions can be helpful in assisting patients in the change process, and if face-to-face contact is not possible or feasible, then telephone counseling appears to be effective, as well. *[A, D]*

The most effective intervention timetables appear to be weekly, or biweekly visits with persons, individually or in groups, with individualized assistance and encouragement to continue to make these healthy behavior changes. *[C, D, R]*

6a. **Increased Physical Activity**

Minimum Goals (any improvement is beneficial)

At a minimum, all individuals should get at least an additional 10 minutes of physical activity above what they are already doing each day.

Healthier Behavior Goals

For healthy adults under age 65:

Moderate intensity aerobic exercise 30 minutes per day, five days per week or vigorous intensity aerobic exercise 20 minutes per day, three days per week.

Strength training exercises (8 to 12 repetitions each of 8 to 10 different exercises) two days per week. *[R]*

Optimal Healthy Behavior Goals

Moderate intensity aerobic exercise 45 minutes every day or 60 minutes most days of the week (300 minutes per week), or 10,000 steps per day, or equivalent.

For information on how to measure your intensity level, please see Appendix B, "Intensity Levels of Physical Activity" in the original guideline document.

Key Messages for Increased Physical Activity

- Positive benefits of increased physical activity include cardiorespiratory fitness, improved blood pressure values, improved lipid profile, increased insulin sensitivity, more effective weight management, improved glycemic control, and helps in alleviating symptoms of depression.
- Because the positive effects of increased physical activity diminish within days of the cessation of exercise, regular activity is necessary.
- Gradually increase levels of physical activity either by increasing duration or frequency.
- It is not true that only high-intensity exercise is beneficial; small but sustained improvements result in significant benefits.
- People who can maintain a regular regimen of longer and more intense activity are likely to derive the greatest benefit.
- Physical activity done intermittently throughout the day (increments of at least 10 min. each) may be as beneficial as longer periods of continuous physical exertion.
- Incorporate small increases in activity (taking stairs, parking farther away, exercising while watching television, and taking short activity breaks) into daily routines. *[A, R]*
- Mild- to moderate-intensity physical activity (brisk walking), when combined with modest weight loss (5% to 10%), results in substantial risk factor modification.
- Use of a pedometer.

Refer to the original guideline document for information about assessment of physical activity and efficacy of clinical interventions.

6b. **Improved Nutrition**

Healthier Behavior Goals

Follow the nutritional standards of the U.S. Dietary Guideline:

- Emphasize fruit, vegetables, whole grains, and fat-free or low-fat dairy products
- Include lean meats, poultry, fish, beans, eggs, and nuts
- Limit saturated fats, trans fats, cholesterol, salt (sodium) and sugar *[R]*

Optimal Healthy Behavior Goals

Follow the nutritional standards of the Mediterranean diet:

- Eat a generous amount of fruits and vegetables
- Consume healthy fats such as olive and canola oil
- Eat small portions of nuts
- Consume very little red meat
- Eat fish on a regular basis
- Drink red wine in moderation* (one 5 oz. serving per day for women, one or two 5 oz. servings per day for men) *[D]*

*There is no evidence that non-drinkers should begin drinking in order to achieve health benefits; this guideline should not be construed in any way advocating such an interpretation.

Key Messages for Improved Nutrition

- Positive benefits of improved nutrition and weight loss include improved blood pressure values, improved lipid profile, improved cardiac status, increased insulin sensitivity, more effective weight management, and improved glycemic control.
- The primary components of a healthier eating pattern include:
    - Adequate caloric intake to maintain or achieve a healthy weight
    - Consumption of whole grains instead of refined grains
    - 5 to 10 servings daily of a variety of fruit and vegetables
    - 2 to 3 servings of fat-free or low-fat dairy products daily
    - Limiting fats to less than 30% of total caloric intake, with saturated fats less than 7% of caloric intake
    - Avoidance of trans fatty acids
    - Aiming for less than 300 mg per day of dietary cholesterol
    - Selecting lean sources of protein and limit red meat
    - No more than 2,400 mg of sodium per day

  Typically an eating pattern associated with less processed foods with emphasis on variety, moderation, portionality, and gradual changes of improvement is more likely to incorporate the above components of a healthier eating pattern. *[R]*

- Modest weight loss (5% to 10%), when combined with mild- to moderate-intensity** physical activity (brisk walking, bicycling 5 to 9 mph, swimming), results in substantial risk factor modification.
- It is not true that only significant weight loss is beneficial; small but sustained improvements result in significant benefits.
- There is no clear evidence that weight cycling is particularly hazardous to health: concerns about cycling should not prevent obese individuals from trying to lose weight. *[C]*

** See Appendix B, "Intensity Levels of Physical Activity" in the original guideline document for further information on moderate intensity physical activity.

Refer to the original guideline document for information about assessment of nutrition and efficacy of clinical interventions.

See Improved Nutrition Decision Tree for more information.

See the National Guideline Clearinghouse (NGC) summary the Institute for Clinical Systems Improvement (ICSI) guideline Prevention and management of obesity (mature adolescents and adults) for additional information on body mass index and weight management.

6c. **Decreased Tobacco Use and Exposure**

Minimum goals (any improvement is beneficial)

At a minimum, identify all individuals who use or are exposed to tobacco and provide a brief intervention to help eliminate or at least decrease their use or exposure.

Healthier Behavior Goals

Identify all individuals who use or are exposed to tobacco and provide brief interventions to all; systematically offer additional interventions, including pharmacotherapy and follow-up, as appropriate.

- Eliminate tobacco advertising and commercial promotion.
- Eliminate tobacco smoke in all public areas, both indoor and outdoors.
- Eliminate youth access to tobacco products

Optimal Healthy Behavior Goals

Eliminate all tobacco use and exposure.

Key Messages to Decrease Tobacco Use and Exposure

- Smoking cessation significantly improves health outcomes.
- Advise all females of childbearing age of the harmful effects of smoking on a fetus and the need for cessation during pregnancy.
- Avoiding tobacco smoke improves health, and quitting smoking at any time improves health.
- Avoid any and all tobacco smoke.
- Do not allow smoking at home, in the family vehicles, or in personal workspaces.
- Telephone quit lines, pharmacotherapy, and other interventions are moderately effective in helping to quit smoking.

Assessment of Tobacco Use and Exposure

It is essential that clinicians and health care delivery systems (including administrators, insurers and purchasers) institutionalize the consistent identification, documentation, and treatment of every tobacco user seen in a health care setting. *[R]*

Efficacy of Clinical Interventions

Tobacco dependence is a chronic condition that often requires repeated intervention. However, effective treatments exist that can produce long-term or even permanent abstinence.

Because effective tobacco dependence treatments are available, every patient who uses tobacco should be offered at least one of these treatments:

- Patients **willing** to try to quit tobacco use should be provided with treatments identified as effective in this guideline.
- Patients **unwilling** to try to quit tobacco use should be provided with a brief intervention designed to increase their motivation to quit.

See Decreased Tobacco Use and Exposure Decision Tree for more information.

Brief Interventions

Brief interventions consist of feedback of screening data designed to increase motivation to change tobacco use behavior, simple advice, health education, goal-setting, practical suggestions, and follow-up, with referral when appropriate. See also Annotation #5, "Collaborative Decision-Making and Brief Interventions."

Brief tobacco dependence treatment is effective, and every patient who uses tobacco should be offered at least brief treatment. *[R]*

Other Interventions

Tobacco telephone quit lines and proactive telephone counseling increase the odds of abstinence by about 20 percent.

Three types of counseling and behavioral therapies were found to be especially effective and should be used with all patients attempting tobacco cessation:

- Provision of practical counseling (problem-solving/skills training)
- Provision of social support as part of treatment (intratreatment social support)
- Help in securing social support outside of treatment (extratreatment social support)

Numerous effective pharmacotherapies for smoking cessation now exist. Except in the presence of contraindications, these should be used with all patients attempting to quit smoking.

Refer to the original guideline document for more information.

6d. **Decreased Hazardous and Harmful Drinking/Alcohol Use**

Minimum Goals (any improvement is beneficial)

At a minimum, identify all individuals who engage in hazardous or harmful drinking/alcohol use, as well as those who meet the criteria for alcohol abuse or dependence, and provide an appropriate brief intervention.

Healthier Behavior Goals

Identify all individuals who engage in hazardous or harmful drinking/alcohol use, as well as those who meet the criteria for alcohol abuse or dependence, and provide brief interventions to all; systematically offer additional interventions and follow-up, as appropriate.

Refrain from hazardous drinking (defined by the number of standard drinks any drink that contains 14 grams of pure alcohol—for example: 12 ounces beer or 5 ounces table wine—in a given time period):

- Healthy men (less than 65 years): No more than 14 drinks per week and no more than 4 drinks per occasion
- Healthy women (and healthy men over 65 years): No more than 7 drinks per week and no more than 3 drinks per occasion *[R]*

Optimal Healthy Behavior Goals

Discontinue all drinking that has any adverse impact on a person's health.

Key Messages to Decrease Hazardous and Harmful Drinking/Alcohol Use

- Several conditions or chronic diseases, including hypertension, trauma, certain cancers and mental health issues, among others, may be positively impacted by decreasing hazardous or harmful levels of drinking.
- Advise all females of childbearing age of the harmful effects of alcohol on a fetus and the need for cessation during pregnancy.
- Reinforce dangers of drinking and driving automobiles, motorcycles, snowmobiles, off-road vehicles, and watercraft.
- Advise patients not to ride with anyone who is under the influence of alcohol and discourage others from driving or operating watercraft while under the influence of alcohol.

Assessment of Harmful and Hazardous Drinking

The AUDIT (the Alcohol Use Disorders Identification Test) tool is the screening instrument best validated for the effective assessment of hazardous or harmful drinking; it can help identify people who would benefit from reducing or ceasing drinking, and give an indication of future alcohol-related problems. The well-known CAGE questions, and others, are designed to screen for alcohol abuse and dependence, but are too narrowly focused to detect individuals in earlier stages of excess alcohol use.

In addition to the screening done as part of a health risk assessment, screening for excessive drinking should also be routinely done for these patients.

- General hospital patients (especially those with disorders known to be associated with alcohol dependence—pancreatitis, cirrhosis, gastritis, tuberculosis, cardiomyopathy)
- Certain persons with psychiatric illness, particularly those who are depressed or who attempt suicide
- Trauma victims in emergency departments
- Homeless persons
- Prisoners

- Persons cited for legal offenses connected with drinking (driving under the influence [DUI], public intoxication, etc.)

The benefits of screening and assessment include:

- Educating patients about appropriate levels of alcohol use and the risks associated with excessive use
- Aiding in the understanding of a patient's presenting symptoms, diagnosis, or lack of response to treatment
- Alerting clinicians about alcohol-drug interactions

Efficacy of Clinical Interventions

Brief Interventions

Brief interventions consist of feedback of screening data designed to increase motivation to change drinking behavior, simple advice, health education, goal-setting, practical suggestions, and follow-up, with referral when appropriate. See also Annotation #2, "Redesign for Results (R4R): Patient-Centered Systems for Healthier Lifestyles."

Interventions based on AUDIT scores are as follows:

- Low-risk drinking or abstinence (AUDIT score 0-7); alcohol education is recommended
- Hazardous drinking (AUDIT score 8-15): simple advice and patient education materials are recommended (see key messages)
- Harmful drinking (AUDIT score 16-19): simple advice, plus brief counseling and continued monitoring are suggested
- Alcohol dependence (AUDIT score 20-40): a referral to a specialist for diagnostic evaluation and treatment should be initiated *[R]*

Refer to the original guideline document for information on other interventions.

7. **Community Interventions for Healthier Lifestyles**

Key Points:

- Multifaceted interventions generally have greater evidence of impact, yet it may be difficult to know which of those facets are most beneficial.
- Developing clinical-community partnerships to support and promote healthier lifestyles (workplace, school, social, family) is important to address these diverse issues.
- Environmental and public policy initiatives to promote healthier lifestyles provide important opportunities for research to demonstrate the effect of such initiatives on healthier behaviors.
- Employers and other payers are increasingly demanding and expecting that health care providers will develop effective interventions for healthier lifestyles.

7a. **Community Interventions to Increase Physical Activity**

Employers and Worksites

There is some evidence that telephone-based lifestyle intervention programs are able to successfully increase or maintain physical activity. These programs are suitable for delivery through employer groups and worksites, as well as through medical groups and health plans. *[R]*

The Community Guide's review of interventions creating or improving access to places for physical activity, including worksites (as well as coalitions, agencies and communities), finds strong evidence to recommend this approach. Many of the programs evaluated also included informational outreach. *[A, B, R]*

Health Plans and Employee Benefit Managers

There is some evidence that telephone-based lifestyle intervention programs are able to successfully increase or maintain physical activity. These programs are suitable for delivery through health plans, as well as through medical groups and employers.

Educators and Schools

The Community Guide reviewed 14 interventions aimed at increasing the amount of time students spend doing moderate or vigorous physical activity in physical education classes. Many interventions also included health education. The Community Guide found strong evidence to recommend such interventions. *[R]*

Refer to the original guideline document for information on other community collaborations.

7b. **Community Interventions to Improve Nutrition**

Employers and Worksites

There is limited evidence that telephone-based lifestyle intervention programs are able to increase healthy eating. These programs are suitable for delivery through employer groups as well as through medical groups and health plans. In addition, there is considerable evidence that changes in food offerings at worksite cafeterias may affect food choices in a positive way.

Thirty-eight adult nutritional environmental intervention studies were identified that influenced the environment through food availability, access, pricing, or point-of-purchase information in worksites, universities, grocery stores, and restaurants. No direct comparisons of studies across settings were possible, but results suggest that worksite and university interventions have the most potential, while grocery store interventions have the least potential for success. *[M]*

Educators and Schools

Food choices in schools come from a number of different sources. Foods sold as part of the National School Lunch Program—with federal guidelines specifying nutritional standards—may compete with the often less healthy choices available from a la carte areas, snack bars, vending machines, and fund-raisers. Improving the nutritional quality of foods offered in school cafeterias is an obvious target for school based interventions to improve nutrition for children, but it is important to consider how such interventions will be rolled out and maintained. In reviewing school-based interventions to promote fruit and vegetable consumption, there is a need for specific behavioral guidelines with food service staff and the need for training and ongoing support for food service staff; further research is needed to determine the school- or district-based factors that make some guidelines easier to implement than others. *[M]*

The Community Guide's review of interventions to improve nutrition is ongoing, but so far concludes that multicomponent school-based nutrition programs have insufficient evidence to recommend them. *[R]* However, structured literature reviews concluded that multicomponent interventions in the school have been effective in promoting small but significant changes in fruit and vegetable consumption. *[M]* Further research is needed to establish long-term effectiveness of such programs.

Refer to the original guideline document for information on faith-based organizations and other community collaborations.

7c. **Community Interventions to Decrease Tobacco Use and Exposure**

Health Plans and Employee Benefit Managers

Tobacco dependence treatments are both clinically effective and cost-effective relative to other medical and disease prevention interventions. As such, insurers and purchasers should ensure that:

- All insurance plans include as a reimbursed benefit the counseling and pharmaco-therapeutic treatments identified as effective in this guideline
- Clinicians are reimbursed for providing tobacco dependence treatment just as they are reimbursed for treating other chronic conditions
- Smoking cessation campaigns are periodically sponsored in concert with mass media education programs and clinical interventions
- There is support for provider reminders and provider education for smoking cessation advice
- There is a reduction in patient out-of-pocket costs for effective treatments for tobacco use and dependence
- There is a sponsorship of patient telephone support (quit lines) when combined with other interventions.

Other Community Collaborations

The independent Task Force on Community Preventive Services has used explicit criteria to judge the effectiveness of community-based interventions within three strategic areas of tobacco use prevention and control: preventing tobacco product use initiation, increasing cessation, and reducing exposure to environmental tobacco smoke (ETS). They found strong evidence that the following interventions reduce exposure to environmental tobacco smoke: smoking bans and restrictions, increasing the unit price for tobacco products, and mass media education (campaigns) when combined with other interventions. They found strong evidence that the following strategies increase tobacco cessation: campaigns, when combined with other interventions; increasing the unit price for tobacco products; provider reminder plus provider education (with or without patient education); and patient telephone support (quit lines) when combined with other interventions. *[R]*

Refer to the original guideline document for additional information.

7d. **Community Interventions to Decrease Hazardous and Harmful Drinking/Alcohol Use**

Broad, evidence-based community strategies to permit low-risk drinking while minimizing alcohol-related threats to public health and safety include youth education, media campaigns, speeding and drunk driving awareness days, "speedwatch" telephone hotlines, police training, Students Against Destructive Decisions (originally "Students Against Driving Drunk") chapters, alcohol-free proms, beer keg registration, increased surveillance of liquor outlets, preschool education programs, and training for staff at hospitals and prenatal clinics. *[R]*

Employers and Worksites

There are sporadic case reports of employers who have attempted to identify alcohol overuse and refer to appropriate management programs. However, there are few clinical trials or controlled studies that address this domain.

Health Plans and Employee Benefit Managers

There is little evidence that health plans have effectively addressed the issue of alcohol overuse.

Other Community Collaborations

There is strong evidence that community-based prevention activities can result in decreases in alcohol consumption. There is suggestive but insufficient evidence that these programs can diminish driving after drinking, traffic death and injury, and speeding. *[R]*

There is strong evidence that changes in the social environment and public policy (increased drinking age, higher alcohol taxes, increased enforcement of driving under the influence and underage drinking, etc.) can result in decreases in alcohol consumption. *[R]*

Follow-up is designed to:

- Update health and risk factor assessment
- Reinforce patient self-management and positive behaviors
- Maintain ongoing clinical interventions
- Decrease relapse prevention

Definitions:

Classes of Research Reports:

A. Primary Reports of New Data Collection

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Non-randomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study
- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

CLINICAL ALGORITHM(S)

Detailed and annotated clinical algorithms are provided for:

- Primary Prevention of Chronic Disease Risk Factors (main algorithm)
- Increased Physical Activity Decision Tree
- Improved Nutrition Decision Tree
- Decreased Tobacco Use and Exposure Decision Tree</a<
- Decreased Hazardous and Harmful Drinking/Alcohol Use Decision Tree

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is classified for selected recommendations (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Overall Benefits

- Implementation of annual health risk assessment for employees
- Increased percentage of adult patients with up-to-date health risk assessment
- Increased number of adult patients with documentation in their medical record, indicating that education around healthier lifestyle was provided and that the patients followed-through with recommended interventions in the area of physical activity, nutrition, tobacco use, and hazardous and harmful drinking/alcohol use
- Development of relationships within the community that foster education and resources around healthier lifestyle

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This clinical guideline should not be construed as medical advice or medical opinion related to any specific facts or circumstances. Patients are urged to consult a health care professional regarding their own situations and any specific medical questions they may have.
- These clinical guidelines are designed to assist clinicians by providing an analytical framework for the evaluation and treatment of patients, and are not

intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition. A guideline will rarely establish the only approach to a problem.

- The work group members fully recognize the role of depression, psychosocial factors, and other mental health problems in aggravating unhealthy lifestyles, as well as the necessity of addressing these issues before effecting positive change. Other Institute for Clinical Systems Improvement (ICSI) work groups and guidelines focus on this topic; their work will be incorporated into later editions of this guideline.
- Research focusing on how environmental changes may promote healthier lifestyles is still relatively new and faces challenges. Although it may be possible to randomize interventions to some extent, real control of the environment is usually not possible; there can be no parallel to the classic randomized placebo controlled double-blinded study. Many studies focusing on a single intervention show mixed results or "significant differences" but at a level, that may have little impact in the long run. Multifaceted interventions generally have greater evidence of impact, yet it may be difficult to know which of those facets are most beneficial. Few studies have had sufficient time to show sustained effects.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Once a guideline is approved for release, a member group can choose to concentrate on the implementation of that guideline. When four or more groups choose the same guideline to implement and they wish to collaborate with others, they may form an action group.

In the action group, each medical group sets specific goals they plan to achieve in improving patient care based on the particular guideline(s). Each medical group shares its experiences and supporting measurement results within the action group. This sharing facilitates a collaborative learning environment. Action group learnings are also documented and shared with interested medical groups within the collaborative.

Currently, action groups may focus on one guideline or a set of guidelines such as hypertension, lipid treatment and tobacco cessation.

The following detailed measurement strategies are presented to help close the gap between clinical practice and the guideline recommendations.

Priority Aims and Suggested Measures

The term "individual" will be used for those in the work/employment setting.

The term "patient" will be used for those in the clinic/medical setting.

1. Establish a relationship with employers to promote the implementation of an annual health risk assessment for employees.

Possible measure for accomplishing this aim:

a. Percentage of employed adult individuals who indicate their employer provides access to an annual health risk assessment, leading to assistance with promotion of physical activity planning, healthy eating, smoking cessation, and decreased hazardous/harmful drinking.

   (If the adult individual indicates his/her employer does not offer any resources around healthy life style, medical groups should use this as an opportunity to consider meeting with the employer to encourage a program and/or encourage the employer to seek information regarding community resources.)

b. Percentage of adult patients who complete a health risk assessment form at their place of employment and bring the completed assessment to a clinic visit for the purpose of adding it to the medical record.

2. Increase the percentage of adult patients with an up-to-date (within the last year) health risk assessment.

   Possible measures for accomplishing this aim:

   a. Percentage of adult patients with a completed health risk assessment documented in their medical record.
   b. Percentage of adult patients with documentation in their medical record, indicating the physician, or designated clinical staff reviewed the assessment with the adult patient.

3. Increase the number of adult patients with documentation in the medical record, indicating education around healthier lifestyle was provided.

   Possible measures for accomplishing this aim:

   a. Percentage of adult patients with documentation in their medical record that an intervention took place (based on health risk assessment) around one or more of the guideline components by the physician or designated clinical staff.

      Physical activity

      Nutrition

      Tobacco use

      Hazardous and harmful drinking/alcohol use

   b. Percentage of adult patients with documentation in their medical record that his/her employer provides education and/or resources around healthier lifestyles pertaining to one or more of the components of the guideline:

Physical activity

Nutrition

Tobacco use

Hazardous and harmful drinking/alcohol use

4. Increase the number of adult patients with documentation in their medical record indicating they self-reported follow-through with recommended interventions in the area of:

   Physical activity

   Nutrition

   Tobacco use

   Hazardous and harmful drinking/alcohol use

   Possible measures for accomplishing this aim:

   a. Percentage of adult patients with documentation in their medical record indicating he/she self-reported follow-through with physical activity interventions.
   b. Percentage of adult patients with documentation in their medical record indicating he/she self-reported follow-through with nutrition interventions.
   c. Percentage of adult patients with documentation in their medical record indicating he/she self-reported follow-through with tobacco cessation interventions.
   d. Percentage of adult patients with documentation in their medical record indicating he/she self-reported follow-through with hazardous or harmful drinking/alcohol use interventions.

5. Develop relationships within the community that foster education and resources around healthier life-style (in order to prevent chronic disease risk factors).

   Possible measures for accomplishing this aim:

   a. Percentage of adult patients who answer "yes" to the questions "Are you aware of healthy lifestyle education and resources provided in your community?"
   b. Percentage of adult patients who indicate they have participated in community offerings around healthy lifestyle, either through attending education sessions or using community services (such as walking trails, indoor services for fitness, etc.).

      (If adult patient indicates his/her community does not offer any resources around healthy lifestyle, use this as an opportunity for

primary care setting leadership to meet with community leaders to encourage and offer suggestions for community programs.)

At this point in development for this guideline, there are no specifications written for possible measures listed above. The Institute for Clinical Systems Improvement (ICSI) will seek input from the medical groups on what measures are of most use as they implement the guideline. In a future revision of the guideline, measurement specifications may be included.

Key Implementation Recommendations

The following system changes were identified by the guideline work group as key strategies for health care systems to incorporate in support of the implementation of this guideline.

1. Develop a plan for educating all physicians and staff about the organizational goals for the Primary Prevention of Chronic Disease Risk Factors.
2. Develop a process to promote the completion of health risk assessments (HRAs) and to support behavioral changes intended to prevent chronic disease development.
3. Build a collaborative relationship between health care providers and employer leadership to support healthier lifestyles. Create communication processes to share initiatives such as wellness programs, health risk assessments, educational opportunities and other support programs.
4. Develop decision support processes in electronic medical records to support physicians and staff in delivering specific components of the guideline.
5. Place education materials that focus on healthier lifestyle throughout the facility. To include but not limited to posters, pamphlets, videos, available Web sites, support groups, and promotion of health risk assessments by informing individuals about the benefits and subsequent assistance with behavior change(s).
6. Seek leadership support for the implementation of an internal worksite wellness program in order to "lead by example."
7. Build relationships between clinic/medical group leadership and community leaders in the area to learn about what kinds of wellness program(s) they provide or would like to provide for their citizens.

See also Appendix D, "Implementation Summary Sheet" and appendix E, "Guideline Implementation Tool" in the original guideline document.

IMPLEMENTATION TOOLS

Clinical Algorithm
Pocket Guide/Reference Cards

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Primary prevention of chronic disease risk factors. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2008 Mar. 60 p. [101 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2008 Mar

GUIDELINE DEVELOPER(S)

Institute for Clinical Systems Improvement - Private Nonprofit Organization

GUIDELINE DEVELOPER COMMENT

Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Community Medical Centers, Allina Medical Clinic, Altru Health System, Aspen Medical Group, Avera Health, CentraCare, Columbia Park Medical Group, Community-University Health Care Center, Dakota Clinic, ENT Specialty Care, Fairview Health Services, Family HealthServices Minnesota, Family Practice Medical Center, Gateway Family Health Clinic, Gillette Children's Specialty Healthcare, Grand Itasca Clinic and Hospital, HealthEast Care System, HealthPartners Central Minnesota Clinics, HealthPartners Medical Group and Clinics, Hutchinson Area Health Care, Hutchinson Medical Center, Lakeview Clinic, Mayo Clinic, Mercy Hospital and Health Care Center, MeritCare, Mille Lacs Health System, Minnesota Gastroenterology, Montevideo Clinic, North Clinic, North Memorial Care System, North Suburban Family Physicians, Northwest Family Physicians, Olmsted Medical Center, Park Nicollet Health Services, Pilot City Health Center, Quello Clinic, Ridgeview Medical Center, River Falls Medical Clinic, Saint Mary's/Duluth Clinic Health System, St. Paul Heart Clinic, Sioux Valley Hospitals and Health System, Southside Community Health Services, Stillwater Medical

Group, SuperiorHealth Medical Group, University of Minnesota Physicians, Winona Clinic, Ltd., Winona Health

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No work group members have potential conflicts of interest to disclose.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Primary prevention of chronic disease risk factors. Executive summary. Bloomington (MN): Institute for Clinical Systems Improvement, 2008 Mar. 1 p. Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.
- ICSI pocket guidelines. April 2006 edition. Bloomington (MN): Institute for Clinical Systems Improvement, 2006. 298 p.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

PATIENT RESOURCES

None available

NGC STATUS

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